

## WHAT IS CLAIMED IS:

1. A method of booting a user terminal using an operating system stored on the side of a network-connected user, comprising:

in booting of said user terminal, transmitting user information that has been selected by a user from OS-boot setting user information stored on a storage medium that is accessed by the user terminal to a server under the control of preboot means started up at said user terminal; and

on the basis of the user information transmitted from said user terminal, authenticating said user terminal by said server, transmitting a specified operating system and application to said user terminal, and booting said user terminal in a user-specific environment.

2. The method according to claim 1, wherein the OS-boot setting user information has been stored on a removable storage medium accessed by said user terminal.

3. A network operating system booting method, comprising:

(a) a step, performed by a user terminal when power is supplied to said user terminal, of executing a system BIOS that has been stored on a read-only storage device, executing predetermined initialization processing by the system BIOS, subsequently loading BIOS preboot means, which has been stored in said storage device, into a memory of said user terminal and delivering control to said BIOS preboot means;

(b) a step, performed by said BIOS preboot means, of acquiring OS booting user information, which has been stored on a removable storage medium, using a removable-storage device driver of said user terminal, and displaying this user information as a boot menu on a display of said user

terminal;

(c) a step, performed by said BIOS preboot means when the user selects an OS environment from the boot menu displayed on said display, of transmitting user information to a server via a network, said user information corresponding to the OS environment selected by the user and including an operating system, start-up application, user ID and security information;

(d) a step, performed by said server that has received the user information transmitted from said user terminal, of retrieving the user information from a user database on which user information has been registered in advance, comparing the user information that has been transmitted from said user terminal with information that has been registered in said user database, and transmitting a specified operating system and application to said user terminal if it is verified that the user possesses the privilege to implement a requested OS environment; and

(e) a step, performed by said BIOS preboot means of said user terminal, of storing the operating system and application, which have been transmitted from said server, as files in a secondary storage device of said user terminal, delivering control to said operating system together with an OS boot option, and booting said operating system.

4. A network operating system booting system having a user terminal and a server connected to said user terminal and storing an operating system executed by said user terminal, wherein preboot means is started up in said user terminal at booting thereof;

said preboot means having means for transmitting, to said server,

information corresponding to an operating system selected by a user from OS-boot setting user information stored on a storage medium that is accessed by said user terminal;

said server having means for authenticating the user of said user terminal based upon the user information that has been transmitted from said user terminal, and transmitting a specified operating system and application to said user terminal.

5. The system according to claim 4, wherein the OS-boot setting user information has been stored on a removable storage medium accessed by said user terminal.

6. In a user terminal, a network operating system booting system for executing a system BIOS in a read-only storage device when power is supplied to said user terminal;

said system BIOS performing control to load BIOS preboot means, which has been stored in said storage device, into a memory of said user terminal after initialization processing is executed, and deliver control to said BIOS preboot means;

said BIOS preboot means having means for acquiring OS booting user information, which has been stored on a removable storage medium, using a removable-storage device driver of said user terminal;

means for extracting settings names from all settings information included in the user information and displaying these settings names as a boot file on a display of said user terminal; and

means which, when the user selects an OS environment desired to be booted from the boot menu displayed on said display, is for transmitting an

operating system, start-up application, user ID and security information, which correspond to the OS environment selected from the user information by the user, to a server;

said server having:

20 a user database in which user information has been registered;  
means which, when the operating system, start-up application, user ID and security information have been received from said user terminal, is for retrieving information of the user ID from said user database, comparing the user information that has been transmitted from said user  
25 terminal with information that has been registered in said user database, and verifying whether the user possesses the privilege to implement a requested OS environment; and

means for transmitting an operating system and application, which have been specified at said user terminal, to said user terminal if it has  
30 been verified that the user possesses said privilege;

said BIOS preboot means of said user terminal having:

means for storing the operating system and application, which have been transmitted from said server, as files in a secondary storage device of said user terminal; and

35 means for delivering control to said operating system together with a boot option of said operating system, and booting said operating system.

7. The system according to claim 4, wherein the user information includes a user ID and settings information, and said settings information includes a settings name, bootable operating system, application, security information and boot option, which is delivered to the operating system,

5 displayed on a display of said user terminal.

8. A computer readable program product for executing the following processes (a) to (f):

wherein when power is supplied to a user terminal, a system BIOS in a read-only storage device thereof is executed;

5 said system BIOS having:

(a) a process for performing control to load BIOS preboot means, which has been stored in said storage device, into a memory of said user terminal after initialization processing is executed, and delivering control to said BIOS preboot means;

10 said BIOS preboot means having:

(b) a process for acquiring OS booting user information, which has been stored on a removable storage medium, using a removable-storage device driver of said user terminal;

(c) a process for extracting settings names from all settings  
15 information included in the user information and displaying these settings names as a boot file on a display of said user terminal; and

(d) a process which, when the user selects an OS environment desired to be booted from the boot menu displayed on said display, is for transmitting an operating system, start-up application, user ID and security  
20 information, which correspond to the OS environment selected from the user information by the user, to a server;

said server having a user database in which user information has been registered; when the user information has been received, said server retrieving the user information from said user database, comparing the user

information that has been transmitted from said user terminal with information that has been registered in said user database; said server verifying whether the user possesses the privilege to implement a requested OS environment; and said server transmitting an operating system and application, which have been specified at said user terminal, to said user terminal if it has been verified that the user possesses said privilege;

said BIOS preboot means of said user terminal having:

(e) a process for storing the operating system and application, which have been transmitted from said server, as files in a secondary storage device of said user terminal; and

(f) a process for delivering control to said operating system together with a boot option of said operating system, and booting said operating system.

9. A computer readable program product for executing processes (a) and (b) by a computer of a server,

wherein when power is supplied to a user terminal, a system BIOS in a read-only storage device thereof is executed;

said system BIOS having means for loading BIOS preboot means, which has been stored in said storage device, in a memory of said user terminal after initialization processing, and delivering control to said BIOS preboot means;

said BIOS preboot means having:

means for acquiring OS booting user information, which has been stored on a removable storage medium, using a removable-storage device driver of said user terminal;

means for extracting settings names from all settings information included in the user information and displaying these settings names as a boot file on a display of said user terminal; and

means which, when the user selects an OS environment desired to be booted from the boot menu displayed on said display, is for transmitting an operating system, start-up application, user ID and security information, which correspond to the OS environment selected from the user

information by the user, to a server;

said server having a user database in which user information has been registered;

said server having:

(a) a process which, when the user information has been received, retrieves the user information from said user database, compares the user information that has been transmitted from said user terminal with information that has been registered in said user database, and verifies whether the user possesses the privilege to implement a requested OS environment; and

(b) a process for transmitting an operating system and application, which have been specified at said user terminal, to said user terminal if it has been verified that the user possesses said privilege;

said BIOS preboot means of said user terminal having:

means for storing the operating system and application, which have been transmitted from said server, as files in a secondary storage device of said user terminal; and

means for delivering control to said operating system together with a

boot option of said operating system, and booting said operating system.

10. A user terminal network-connected to a server which stores an operating system executed by the user terminal, said user terminal downloading the operating system from said server and booting the operating system, said user terminal comprising:

5 preboot means started up at booting; and  
means for accessing a storage medium removably inserted into said user terminal;

said preboot means having:

means for transmitting, to said server, information corresponding to  
10 an operating system which a user has selected from OS-boot setting user information that has been recorded on said storage medium; and

means which, when said server authenticates the user of said user terminal based upon the user information that has been transmitted from said user terminal and transmits a specified operating system and  
15 application to said user terminal, is for storing the operating system and application as files in a secondary storage device of said user terminal, delivering control to said operating system together with a boot option of the set operating system, and booting said operating system.

11. A server comprising:

a storage device for storing an operating system and an application started up by a user terminal;

a user database in which are previously registered, for every user ID,  
5 an operating system bootable by the user terminal, an application capable of being started by the user terminal, and security information;



means which, when the user information has been received by said user terminal set forth in claim 10, is for retrieving the user information from said user database, comparing the user information that has been

10 transmitted from said user terminal with information that has been registered in said user database, and verifying whether the user possesses the privilege to implement a requested OS environment; and

means for transmitting an operating system and application, which have been specified at said user terminal, to said user terminal if it has  
15 been verified that the user possesses said privilege.

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